SDUSD is implementing Oracle Business Intelligence Enterprise Edition (OBIEE) and Oracle Business Intelligence (BI) Applications to improve and restructure the district's internal financial controls and processes. In addition, SDUSD will implement Oracle's PeopleSoft Enterprise eSettlements, PeopleSoft Enterprise Supplier Contract Management and PeopleSoft Enterprise eSupplier Connection to streamline procurement processes, reduce administrative burdens and reduce overall spending.

With OBIEE and Oracle BI Applications, SDUSD expects to improve the enterprise resource planning process and improve visibility and access to key data (i.e. student metrics related to attendance and enrollment) for better management and executive level decision-making. SDUSD will use the PeopleSoft Enterprise applications to centralize procurement and add advanced procurement capabilities. This is expected to ultimately reduce spending on goods and services, streamline procure-to-pay processes, and drive policy compliance.

As it implements a comprehensive business intelligence system, SDUSD will evolve over time to have a single source for reporting, full integration of all district data, elimination of data silos, and data transparency. The business intelligence system will enable the district to identify "bad" data and allow sites and departments to see and fix it, and to develop a districtwide Data Governance program.

The district also has implemented student information system applications, including C Innovations' Zangle SIS. Zangle covers all aspects of student management, including enrollment, scheduling, attendance, assessment, mark reporting, transcripts and graduation, discipline, health, test management, services and programs management, English Learner testing and programs, special education, student accounting, school-to-work programs, and food services. Zangle is a non-proprietary, ODBC compliant, enterprise-wide open system running on Microsoft SQL Server. Because it is a non-proprietary system, all data is accessible to create custom applications or reports using third party software (such as the Oracle Business Intelligence systems). Zangle captures the data elements necessary to enable SDUSD to meet the numerous federally mandated reports such as NCLB, state reports such as CA Longitudinal Pupil Achievement Data System (CALPADS) and the several mandated district reports on regulations and accountability.

SDUSD has implemented Encore, an Individualized Educational Plan (IEP) software system. The Encore IEP software suite provides a web-based all-in-one solution to manage the individualized learning process for all students receiving special services including special education, 504, limited English proficiency (LEP/ESL) and pre-referral Response to Intervention (RTI) programs. Encore provides a full spectrum of capabilities including state reporting, accountability and Medicaid billing recovery.

SDUSD has selected Schoolwires Centricity for the district's content management system (CMS) to provide online access to educational resources, tools and information for teachers, students, administrators, staff, parents and community members. SDUSD identified two key functions of the content management system during its selection process:

(1) The CMS centralizes all district information and content, and then delivers that information to individual users based on their roles, rights and responsibilities. It allows

display of only useful, relevant content, and automates business processes while maintaining accountability. The CMS provides access to business applications, district news and information, employment information, email, digital storage, professional development and training, and online collaboration tools such as video streaming and conferencing and content resources for curriculum development.

(2) The CMS enables teachers and staff to create, edit and manage their own content and publish it to the Web without special equipment or expertise. This automated publishing function will be forms-based for consistency and ease of use.

SDUSD selected the Schoolwires Centricity solution for its CMS. Centricity offers a comprehensive, integrated suite of online solutions that connects the K-12 community via a single unified technology platform. Centricity's high level of Web 2.0 functionality and interactivity enables users to use a host of functions — personalization, blogs, forums, discussion groups, user ratings/comments and more.

Centricity provides employee access to business applications and communications; administrator access to educational administration applications (school, department information; student academic achievement, etc.); teacher access to educational administration applications (attendance, grading, etc.); teacher access to educational technology applications (such as website development) and support; student access to educational technology applications and support, including teacher's class websites; parent access to district, school, classroom and student information; and community access to district and school information.

Hardware. The district includes the specifications for the hardware needed to operate its networks and information systems in the design of those systems. The appropriate hardware has been implemented as needed during the installation of the Local Area Network and the integrated information system.

At the end of the 2008-2009 school year, student computer access was provided through desktop/computers located in classrooms, libraries and labs. The district's elementary, middle and high schools have different levels of access to computers:

- Most student computers are in classrooms; but only 81% of them have Internet access. Many classroom computers are more than three years old. Newly constructed or rebuilt elementary schools have digital classrooms, which provide a teacher presentation system that includes a computer, LCD video projector, document camera, a SchoolPad (a wireless mobile pad), and audio system, and network and Internet access.

- Middle schools generally have traditional classrooms with an overhead projector and white board. They may have a few computers in each classroom, but almost a quarter of the computers available are in labs. Many of the computers available are too old to run electronic learning resources. There is no file protection or storage solution available. The two rebuilt or newly constructed middle schools will have digital classrooms that provide a teacher presentation system.

- High schools also generally have traditional classrooms with an overhead projector and white board. They may have a few computers in each classroom, but many of them are too old to run electronic learning resources. About one in five of the computers available for student use are in labs. There is no file protection or storage solution available.

Approximately 15% of schools are using mobile computer carts, which provide computers for student use on a 1:1 basis, a teacher workstation, a projection device, laser printer and network connections. Table 12 summarizes schools' access to hardware:

TABLE 12: ACCESS TO COMPUTERS

	Elementary Schools	**Middle Schools**	**High Schools**
Average ratio of students to computers[1]	4.19	2.39	3.58
Percent of computers in classrooms[2]	71%	49%	55%
Percent of computers in labs[2]	13%	23%	27%
Percent of computers in library[2]	6%	8%	5%
Percent of computers in carts[2]	4%	16%	11%
Percent of computers with Internet access[2]	81%	96%	97%
Percent of computers under 3 years old[2]	30.9%	44.6%	32.5%
Percent of computers 3-4 years old[2]	16.6%	21.0%	21.8%
Percent of computers over 4 years old[2]	43.2%	34.0%	47.0%

Source: [1]SDUSD data reported to the California Department of Education, 2008-2009; [2]State Technology Survey 2007.

Approved by the SDUSD Board of Education on June 2, 2009, the 21st Century (i21) Interactive Classroom Initiative is a multi phased five-year plan beginning July 1, 2009.

Prop S 5-Year Technology Implementation Plan				
2009	2010	2011	2012	2013
Grade 3	Grade 4	Grade 5	Grade 1	Grade K
Grade 6	Grade 7	Grade 8		Grade 2
Grades 9-12 Mathematics (20%)	Grades 9-12 (20%)	Grades 9-12 (20%)	Grades 9-12 (20%)	Grades 9-12 (20%)

It is anticipated that by the end of the 2009-2010 school year, approximately 1,300 classrooms will have been updated, thus impacting teaching and learning for over 25,000 students and their teachers.

The 21st Century (i21) Interactive Classroom is an engaging, interconnected learning environment designed to optimize student access and participation by integrating mobile computing, audio, visual and formative assessment technologies across the curriculum. The i21 classroom is both relevant and advanced in technology implementation that maximizes flexibility and provides just-in-time functionality for student learning.

The essential tools of the i21 classroom include the pairing of Interactive White Board (IWB) technology with student computers (Netbooks) to increase the ability to teach with technology, and to optimize student access and engagement. These tools allow the teacher to configure the learning environment according to the context of the student-centric work at hand to meet state standards and learn 21st Century skills as thinkers, creators, designers and builders.

A strategic pervasive capacity-building (PCB) implementation model will be utilized over a five-year period to transform more than 7,000 district classrooms. The PCB approach provides two advantages in large scale systemic technology implementations: 1) enables computing tools and resources to be pervasive as students move forward from grade to grade; 2) increase training capacity by developing expertise among teachers with shared content and teaching practices. Approximately 1,300 *i21* interactive classrooms have been installed in the 2009-2010 school year: all district third- and sixth-grade classrooms and 20 percent of all ninth- through 12th-grade classrooms (starting with mathematics). The above chart outlines the progression of i21 implementation in years 2-5

The i21 interactive classroom consists of four major systems that integrate the hardware, software and networked technologies to provide teaching strategies that integrate technology for differentiating instruction in multiple ways of representation, expression and engagement. Teachers will use a variety of digital tools to create curricula materials that provide access, engagement and achievement to a diverse group of learners in the classroom. The four components of the i21 interactive classroom include:

1. The 95" diagonal **Interactive Whiteboard** provides students a multi-sensory experience including presenting information displayed with perceptual features that can be varied:
   - *size* of text or images
   - *amplitude* of speech or sound
   - *contrast* between background and text or image
   - *color* used for information or emphasis
   - *speed* or timing of video, animation, sound, simulations, etc
   - *layout* of visual or other elements

2. The **Presentation Station** including the **Document Camera** and **Teacher's Multimedia Tablet Computers** provide visual and auditory options to students including:
   - Enlarged text and objects from micro to macro sizes that can be seen from anywhere in the classroom

- Graphics, animations and video options
- Text to speech options (allows students to hear text read aloud)
- Software to highlight and annotate text and graphic features for all student to see and hear with the interactive whiteboard system

3. **Classroom Audio Technology** including a sound-field amplification wireless microphone system that allows the teacher and students to be clearly heard anywhere in the classroom. The system also includes:
   - HDTV tuner with closed captioning
   - DVD player/ recorder for playing all formats of DVD and digital media flash drives
   - Four ceiling or wall speakers with amplifier to evenly distribute any audio source in the classroom.

4. **Student computers (Netbooks):** Every 3rd grade classroom is provided a cart containing 25 Netbooks and every 4th through 12th grade classroom is provided with a cart with 34 Netbooks. (Netbook implementation is limited to academic classrooms)
   Features include:
   - Hard drive software applications to create content
   - Wireless access to the Internet and classroom printing access
   - eReader for eBooks and eTextbooks with text to speech options
   - MP3/Podcasting software for a variety of audio files
   - A student response system built-in as VR software for formative assessment connected and directed with the teacher's computers
   - Web-based applications in an networked academic cloud of read/write services

5. **Student Responders:** A set of 24 student responders is provided to every K-2 class.
   Each learner response devide gives individual students a voice while equipping teachers with a revolutionary tool for delivering dynamic lessons tailored to the immediate assessment of student performance.

Electronic learning resources. Currently available electronic learning resources support content areas include the following applications.

- Productivity software such as word processors, presentation tools and spreadsheets.
- Graphic organizers
- Digital media applications for editing movies, slide shows and pod casts. Artificial intelligentskill development programs such as those that analyze student writing Data-collection software such as probeware and datalogger
- Digital resources/data base tools such as Pro Quest, and United Streaming
- Online simulations through resources such

The district will continue to evaluate a variety of applications such as those listed above. Open Source and digital content will be considered as it becomes more readily available and supportable.

Technical Support. The SDUSD Integrated Technology Support Services (ITSS) Department provides technical support for the maintenance and operations of all operating systems, including the telecommunications systems and Local Area Networks, and the integrated information system. The ITSS Division operates a Help Desk that utilizes a tiered support model. At Tier 1, a representative answers the Help Desk call, identifies the problem, records it and routes it to the appropriate person for resolution. In some instances the Tier 1 representative is able to solve the problem over the telephone. In Tier 2 assistance, a Computer Repair Technician will access the problem computer remotely, diagnose the problem, and repair it remotely if possible. In instances in which the problem cannot be repaired remotely, the Help Desk will send a Computer Repair Technician or other expert to the work site to repair the equipment.

The ITSS Division also provides centralized technical support to all elementary, K-8 and middle school sites through a tech support pool consisting of 20 Network Systems Media Technicians. Each comprehensive high school has a Network Systems Media Technician built its minimum staffing allocationLarge middle school sites are encouraged to continue to use site discretionalry funds to support their own dedicated Networks Systems Media Techician positions.. Additionally, the following classified staff positions provide technical support to the teachers and staff at the school site:

1. *Network systems technician.* This position provides software training and technical assistance to staff and maintains equipment inventories. The Network Systems Technician performs any combination of the following duties: assists in coordinating the implementation and maintenance of a LAN and WAN; installs and configures hardware, software workstations, and troubleshoots hardware, software and network connections.

2. *Media production specialist.* This position assists students and staff by performing professional multimedia duties in the following areas: provides training to students in the operation of media equipment and in the production of video newscasts and other programs; coordinates satellite downlinks, interactive conferences and ITV and CCTV schedules; and prepares or trains students in the preparation of desktop publications and the design and development of graphic displays.

3. *Network systems and media support technician.* This position coordinates the implementation and maintenance of a LAN system at a school site, provides training and technical assistance to staff related to the operation of the LAN and WAN systems, and provides AV and video support services. The Network systems and media support technician also may install workstation hardware and related equipment, install and configure workstation software, troubleshoot and isolate problems of cross-platform microcomputers and printers, and determine if the problem is related to hardware, software or a combination.

Each school site has a Student Information Site Technician to work on attendance, calendar, and other student information functions. Some of these Student Information Site Technicians provide informal technical support on the site, but that is not part of their job.

5.b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development Components of the plan.

SDUSD teachers, students and administrators need access to a comprehensive technology system to support the curriculum and professional development activities outlined in this plan. The components of the comprehensive technology system needed are described below.

Physical infrastructure and networking. Networking and Internet access requires the appropriate physical infrastructure (and related software applications) at both school and administrative sites. Proposition S will install a wireless network in each school site and upgrade site electrical systems as needed. It will increase the backbone to 10 GB between the district Data Centers and network sites. Elementary schools will be increased from 15 MB to 100 MB per site; middle schools and high schools will be increased from 20 MB to 500 MB at each site.

Telecommunications. SDUSD will move to Voice-over-Internet Protocol (VoIP) to provide the communications and networking applications required for integrating technology into the curriculum and professional development. This will include video over the Internet as well as voice communications, directory services, appropriate filters for SPAM, viruses, and email web security. The San Diego Board of Education approved the acquisition of a VoIP system in January 2010.

Information Systems. SDUSD plans to implement a document management system during the term of this 2010-2015 Educational Technology Strategic Plan. The district has selected Schoolwires Synergy, a web-based, centralized and secure solution for creating, editing, and sharing content such as documents, files and presentations. Synergy is designed to give K-12 administrators, staff, teachers and students the power to securely store, organize and access digital files online at any time, from anywhere — from collaborative learning assignments and class presentations to contact lists and more. It provides a web-based environment to allow teachers, students, administration and staff to securely create, store, organize, edit and share their files. Files can be created and edited online from any web browser. It enables teachers to share important information and assignments and manage homework drop boxes. It enables students to collaborate on papers and group projects. Synergy creates consistent folder hierarchies and folder configurations to provide easier access to files.

SDUSD is now considering adoption of a student achievement management system to expand on the ENCORE system to provide a case management platform for all students in grades K-6. SDUSD has selected EXCEED as its Student Achievement Management software solution. In a single, web-based platform, EXCEED Student Achievement Manager consolidates student information to provide a single access point and holistic, 360° view of each student ensuring fully-informed, evidence-based decision making. It gives teachers a simple, automated way to drive day-to-day activities, interventions and progress monitoring, incorporates any interventions/instructional strategies, goal banks and curriculum-based/progress monitoring measures, and shows what is working most effectively at the individual student, class, grade,

group or district level. SDUSD will implement EXCEED during the term of this 2010-2015 Educational Technology Strategic Plan.

Hardware. The specifications for the hardware needed to operate district networks and information systems are included in the design of those systems. The 21st Century (i21) Interactive Classroom Initiative is a multi phased five-year plan that began July 1, 2009. The 21st Century (i21) Interactive Classroom is an engaging interconnected learning environment designed to optimize student access and participation by integrating mobile computing, audio, visual and formative assessment technologies across the curriculum. The essential tools of the i21 classroom include the pairing of Interactive White Board (IWB) technology with student computers (Netbooks) to increase the ability to teach with technology, and to optimize student access and engagement. These tools allow the teacher to configure the learning environment according to the context of the student-centric work at hand to meet state standards and learn 21st Century skills as thinkers, creators, designers and builders.

A strategic pervasive capacity-building (PCB) implementation model will be utilized over a five-year period to transform more than 7,000 district classrooms. The PCB approach provides two advantages in large scale systemic technology implementations: 1) enables computing tools and resources to be pervasive as students move forward from grade to grade; 2) increase training capacity by developing expertise among teachers with shared content and teaching practices. In Year 1 of this Plan (the 2010-2011 school year, and the second year of the i21 implementation), all classrooms in grades 4 and 7 will be transformed, as will grades 9-12 Language Arts classrooms. In Year 2 of the plan (the 2011-2012 school year), classrooms in grades 5 and 8 will be transformed, as will 20% of grades 9-12 classrooms. In Year 3 of the plan (2012-2013) SDUSD will update all grade 1 classrooms and another 20% of the district's high school classrooms. In Year 4 of the plan(2013-2014) SDUSD will update all Kindergarten and grade 2 classrooms and the remaining district core subject high school classrooms.

The i21 interactive classroom consists of four major systems that integrate the hardware, software and networked technologies to provide teaching strategies that integrate technology for differentiating instruction in multiple ways of representation, expression and engagement. Teachers will use a variety of digital tools to create curricula materials that provide access, engagement and achievement to a diverse group of learners in the classroom. The four components of the i21 interactive classroom include:

1. The 95" diagonal Interactive Whiteboard provides students a multi-sensory experience including presenting information displayed with perceptual features that can be varied.

2. The Presentation Station including the Document Camera and Teacher's Multimedia Tablet Computers provide visual and auditory options to students.

3. Classroom Audio Technology including a sound-field amplification wireless microphone system that allows the teacher and students to be clearly heard anywhere in the classroom.

4. Student computers (Netbooks), provide classrooms with a one-to-one ratio for every 3rd to 12th grade student.

SDUSD also will pilot test a 1:1 computing program that will provide students with personal computers (Netbooks) that they can take home, and that provides broadband access at schools and at home. This pilot test will determine what it takes to implement a take-home program and whether it can be scaled districtwide to help close the digital divide among students in the district.

Electronic learning resources. SDUSD is preparing to adopt digital textbooks that are downloadable and may be projected on a screen, viewed on a computer, printed chapter by chapter, or bound for use in the classroom. In its selection process, SDUSD expects to utilize reviews of available digital textbooks facilitated by the California Learning Resource Network (CLRN) that confirm whether materials fully, partially or did not meet State Board of Education adopted standards for geometry, algebra II, trigonometry, calculus, physics, chemistry, biology/life science and earth science.

Technical Support. Additional technical support at the school sites is needed to help teachers ensure that the technology they are integrating into the curriculum is up, running, and providing students with access to the Internet, communications, software applications and rich content resources.

Systems and equipment needed. SDUSD has identified the specific systems and equipment that is needed for the implementation of the Educational Technology Strategic Plan. The items to be acquired for the implementation of the curriculum and professional development components of the plan are listed below.

Items to Be Acquired
A wide range of hardware, software and applications will be purchased to implement the Educational Technology Strategic Plan (see sections 4000 and 5000 of the budget, pages 98-101). The purchases may be grouped into several categories, including: • Infrastructure upgrades to existing and new schools, as identified in district facilities plan, including cabling and conduits to support both WAN and LAN applications. • Expanding VoIP existing system for telecommunications • Hardware o Equipment for the VoIP system, including telephones o The computers and other equipment specified to outfit an i21 interactive classroom.

Items to Be Acquired (cont.)

- Integrated Information Systems upgrades
  - Oracle Business Intelligence developments
  - IEP/RTI software
  - PeopleSoft business applications upgrades
  - File storage and document management systems
  - Business application upgrades and support
    - Transportation
    - Food Services
    - Maintenance
    - Mail Distribution
    - Inventory
    - Security

- Electronic learning resources
  - Centricity, the Content Management System that will to provide website development applications and access to the integrated information system
  - Instructional applications and access to content, including
    - Digital textbooks
    - online databases
    - online content streaming
    - and online project builder
  - Digital storage applications

The acquisition, installation and implementation of these hardware and software applications will support the curriculum and professional development components of this plan. Key stakeholder groups will gain access to educational information and resources:

- Teachers will be able to use the computer provided in their classroom to gain access to an integrated information system that will provide: ready access to instructional resources; webpage development software; email they can use to communicate with students, parents, and colleagues; voicemail to facilitate communications with parents and community members; access to the student information system; student attendance and record-keeping systems; business applications (such as employee information).

- Students will be able to access the integrated information system from computers available in the classroom (either through desktop computers in the classroom, computers (Netbooks) accessed from mobile computer carts or through the completed i21 interactive classroom). The system will allow students to access web 2.0 tools., the Internet, and instructional resources and materials. The system also will facilitate student communication with their teachers and access to instructional resources when they are not at school.

- Parents will have access to teachers and administrators via email and voicemail (so that parents can leave messages while the teachers and administrators are in class). Parents also will be able to access information about the district, their child's school, and their child's courses via district, school, and teacher webpages.

- Community members will be able to access information about the district, schools and classes via the websites that are developed through use of the system.

5.c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.

The district has begun the process of developing an integrated information system and content management system that will provide online access to educational resources, tools and information for teachers, students, administrators, staff, parents and community members. The integrated information system and content management system will make student record keeping and assessment more efficient. The district has selected appropriate software for the integrated information system components. Implementation of the district integrated information system involves the development and implementation of the following system components: (1) Internet and network access; (2) Business Applications (predominately through PeopleSoft), a Student information system, including Zangle, an integrated student information system, Encore, an IEP software system, and the student information data warehouse; and User Access, managed through the Content Management System.

The goals, objectives, benchmarks and timelines for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components target groups are described on the following pages.

Goal 5.c.1. Provide teachers, administrators and staff with online access to timely, relevant and accurate student, teacher and school data that can be used to enhance teaching and learning.

Objective 5.c.1.1 **By 6/2015, 100% of district teachers, administrators and staff members will have access to an online portal, content management system and document management system that will provide teaching, instructional management, business and communications applications.**

Activities	Responsible Parties	Timeline
Complete installation of 10 GB internet backbone and 100-500 MB network access at all district sites.	District ITSS Division; Facilities Dept.	7/2010 – 6/2011
Complete implementation of the online information portal software components of the integrated information system; install and troubleshoot system; implement system.	District ITSS Division staff	7/2010 – 6/2011 then ongoing as needed
Complete implementation of the content management system software component of the integrated information system; install and troubleshoot system; implement system.	District ITSS Division staff	1/2011 – 6/2012 then ongoing as needed
Implement the document management system software component of the integrated information system; install and troubleshoot system; implement system.	District ITSS Division staff	1/2011 – 6/2012 then ongoing as needed

Benchmarks:

- By 6/2011, 20% of district teachers, administrators and staff will have access to instructional, educational administration and business/communications applications through an online portal and content management system.
- By 6/2012, 40% of district teachers, administrators and staff will have access to instructional, educational administration and business/communications applications through an online portal and content management system.
- By 6/2012, 60% of district teachers, administrators and staff will have access to instructional, educational administration and business/communications applications through an online portal and content management system.

- By 6/2014, 80% of district teachers, administrators and staff will have access to instructional, educational administration and business/communications applications through an online portal and content management system.

- By 6/2015, 100% of district teachers, administrators and staff will have access to instructional, educational administration and business/communications applications through an online portal and content management system.

Target Group:
The target groups for this objective include all district staff members who use business applications and communications. Parents and students will benefit from the availability of communications systems.

Process for Monitoring:
The ETSP Evaluation subcommittee members will review staff reports to determine whether district teachers, administrators and staff members have access to appropriate instructional, educational administration, business and communications applications through an online portal and content management system. The Evaluation subcommittee will report its findings to the ETSP Committee.

Goal 5.c.2. Provide all teachers with timely and relevant technical support to improve their access to, understanding of, and use of technology for teaching and classroom management.

Objective 5.c.2.1 **By 6/2015, 100% of district teachers will have access to the full range of identified technical support resources.**

Activities	Responsible Parties	Timeline
Identify and/or develop written resources for technical support; procure or publish, and disseminate them to teachers.	District ITSS Division staff	7/2010 – 6/2011
Develop and/or identify web-based technical information resources that can deliver online technical support to teachers, covering the use of the available technology for teaching and classroom management.	District ITSS Division staff	7/2010 – 6/2011
Expand the current help desk program to provide computer -based technical support to teachers to troubleshoot technical problems.	District ITSS Division	7/2010 – 6/2011 Then ongoing, reviewed quarterly
Provide technical support over the network (with a help desk staff members able to control the caller's computer remotely) to provide immediate assistance with technical problems and appropriate/feasible repairs.	District ITSS Division	1/2011–6/2012 Then ongoing
Provide centralized technical support to all elementary, K-8 and middle school sites through a tech support pool of Network Systems Media Technicians providing in-person technical support and repairs on-site. (Each comprehensive high school has a Network Systems Media Technician built its minimum staffing allocation)	District ITSS Division District and site administrators	1/2011-6/2012 then ongoing as needed

Benchmarks:

- By 6/2011, 20% of district teachers will have access to the full range of identified technical support resources, as measured by site reports and the State Technology Survey.

- By 6/2012, 40% of district teachers will have access to the full range of identified technical support resources, as measured by site reports and the State Technology Survey.
- By 6/2013, 60% of district teachers will have access to the full range of identified technical support resources, as measured by site reports and the State Technology Survey.
- By 6/2014, 80% of district teachers will have access to the full range of identified technical support resources, as measured by site reports and the State Technology Survey.
- By 6/2015, 100% of district teachers will have access to the full range of identified technical support resources, as measured by site reports and the State Technology Survey.

Target Group:
The target groups for this objective include district teachers, students and site administrators.

Process for Monitoring:
The ETSP Evaluation subcommittee will review semester site reports and the annual State Technology Survey results (as available) to determine whether district teachers have access to the full range of identified technical support resources. The subcommittee will report its findings to the ETSP Committee.

Goal 5.c.3. Provide all students with adequate access to one-to-one computing resources to meet their learning needs.

Objective 5.c.3.1 By 6/2015, 100% of district students will use computers (mobile computing) at a one-to-one ratio on a regular basis.

Activities	Responsible Parties	Timeline
Complete installation of 10 GB internet backbone and 100-500 MB network access at all district sites.	District ITSS Division; Facilities Dept.	7/2010 – 8/2011
Establish i21 computers standards for school-to-home programs.	Educational Technology Team; ITSS Division	7/2010 – 8/2010 for standards
Develop and maintain i21 interactive classrooms.	Educational Technology Team; ITSS Division	9/2010-6/2015
Provide options for schools to provide procurement strategies for schools to implement 3G internet access for students and teachers in School-to-Home programs.	District ITSS Division.	7/2010-6/2011
Investigate additional resources to maintain the desired refresh rate; implement a proof of concept on the feasibility of leasing and plan to acquire computers for student use and access to 1:1 computing opportunities.	District CITO	7/2010 – 6/2011
Acquire additional computers and academic software to maintain the desired refresh rate.	ITSS Division; school sites	7/2011 – 6/2012 then annually through 6/2015

Benchmarks:

- By 6/2011, 20% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.
- By 6/2012, 40% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.

- By 6/2013, 60% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.

- By 6/2014, 80% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.

- By 6/2015, 100% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.

Target Group:
The target groups for this objective include district students, teachers, and site administrators.

Process for Monitoring:
The ETSP Evaluation Subcommittee will review site reports and State Technology Survey results (as available) to determine the percentage of district students who use computers at a one-to-one ratio on a regular basis. The Evaluation subcommittee will report its findings to the ETSP Committee.

5.d. Description of the process that will be used to monitor Section 5b and the annual benchmarks and timelines of activities including roles and responsibilities.

The monitoring process for the achievement of each objective is described in the prior sections. The Educational Technology Strategic Plan (ETSP) Committee will be established to provide oversight to the implementation of the technology plan and to evaluate its impact of district goals for student learning and classroom and school management. The ETSP Committee will establish an Evaluation subcommittee to review data and program reports collected district staff to determine whether the ETSP is achieving its goals and objectives.

The Educational Technology Director will serve as lead staff to the ETSP Committee, and will be responsible for providing semi-annual briefing reports of progress in implementing the plan and annual data on the impact of technology on student learning and attainment of the district's curriculum goals. The ETSP Evaluation subcommittee will review these reports at each semi-annual evaluation meeting. Each summer, the ETSP Evaluation subcommittee will conduct an in-depth review of all narrative reports, EdTechProfile and State technology Survey results and student achievement data.

The ETSP Evaluation subcommittee will identify the most successful practices and areas in which challenges have been encountered and improvements are needed, identify potential changes and improvements that could be made to the Educational Technology Strategic Plan, and make recommendations for changes to the plan to the full ETSP Committee for their review. The full ETSP Committee will prepare an annual report to the Superintendent and Board of Education concerning their findings and recommendations. The ETSP Committee also will share their data and conclusions with all key stakeholders, including teachers, school site administrators, central office staff and administrators, parents, students and community members. Please refer to Section 7 of this plan for a more comprehensive overview of the monitoring plan.

6. FUNDING AND BUDGET COMPONENT CRITERIA

6.a. List of established and potential funding sources.

There are several types of funding sources within the district:

- General fund. This is the district's unrestricted state and local funding. General funds are used to cover the majority of the district's ongoing operations, including books, supplies, employee salaries and benefits, instructional programs and professional development.

- Categorical funds. Categorical funds are state and federal funds that are restricted in their use to specific purposes and programs. In general, their intent is to provide instructional support to students beyond the educational program provided by the district. These funds are often used to acquire technology and support the integration of technology into the curriculum.

- Bond funds. Proposition S, passed by the voters in the City of San Diego in 2008, provides funding for the Integrated 21st Century (i21) Interactive Classroom Initiative which provides technology upgrades for 7000+ classrooms at the district's elementary schools, middle and high schools. The Proposition S bond measure will provide over $25 million per year through 2015 for educational technology (and a total of $400 million over 15 years).

- Grant funds The district receives grants from the state and federal government and from foundations and other organizations. The district usually must compete to win these grants, which are primarily categorical in nature, with restricted uses for the funding and full accountability to the funding agency for fulfilling the criteria and/or requirements of the grant. The district also receives donations of equipment and services from companies and organizations.

SDUSD also participates in a number of programs to reduce its costs for telecommunications and computers. These programs include:

- *E-Rate Program.* This federal program subsidizes a broad range of telecommunications services across the district.

- *CALNET Contract.* SDUSD participates in statewide contracts competitively bid and negotiated by the California Department of Governmental Services, which results in savings on telecommunications charges.

- *The California Teleconnect Fund*, operated by the California Public Utilities Commission, and which provides 50% discounts of most ongoing costs for telecommunications services provided by common carriers.

- *Western States Contracting Alliance*, cooperative multi-state contracting developed on behalf of public entities by the state purchasing directors from 15 western states, and which provides competitive prices on computers and peripheral products.

- The *California Multiple Awards Schedule* (CMAS), which provides contract terms and negotiated discounts on equipment and services through the California Department of Governmental Services.

SDUSD maintains a grants office that keep close watch on potential funding opportunities and that works with district staff to guide their development of competitive grant proposals. The Integrated Technology Support Services department staff members also stay abreast of new funding sources and opportunities.

6.b. Estimate annual implementation costs for the term of the plan.

The tables below provides an estimate of the full implementation costs for each of the five years of the Educational Technology Strategic Plan. The table includes technology acquired through the full range of budget resources available to the district. The cost estimates are reasonable and estimate the total cost of ownership

Budget Sources	**Year 1 2010-2011**	**Year 2 2011-2012**	**Year 3 2012-2013**	**Year 4 2013-2014**	**Year 5 2014-2015**
ITSS	20,816,078	24,833,366	27,183,366	29,058,366	31821402
Ed Tech	926,248	926,248	926,248	926,248	926,248
Title 1	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
*Prop S	238,837	238,837	238,837	238,837	
State Facilities Fund	3,700,000	1,700,000	1,700,000	1,700,000	1,700,000
TOTAL	$27,281,163	$29,298,451	$31,648,451	$33,523,451	$36,047,650
*Prop S amounts above are for staff augmentation only and do not include the June 2, 2009 board approved i21 project infrastructure and hardware allocations.					

6.c. Description of the district's i21 sustainability and replacement plan for obsolete equipment.

In November 2008 San Diego voters approved a significant investment in new technology for district schools through Proposition S. The approved "Proposition S" bond measure will provide over $42 million per year through 2014 for educational technology (and a total of $400 million over 15 years.) Proposition S will provide funding for the SDUSD "21st Century (i21) Interactive Classroom Initiative," a five-year phased plan to implement the significant investment in new educational technology in public schools approved by San Diego voters. Beyond the initial Prop S investment in creating 21st Century Classroom, it is essential that the district fund a consistent hardware repair and replacement program to sustain transformation of classroom learning environments.

The industry standard for computer replacement is approximately every three years. Although three year is optimal, due to budget constraints, the plan proposes a 4 to 5 year replacement cycle depending on grade level. To accomplish this, the strategic technology plan calls for increased funding over the next five years to adequately address i21 computer upgrades and repairs. The Educational Technology and Information Technology departments will also work with the Educational Technology Strategic Plan Committee to develop viable policies and strategies for schools to address and better manage Total Cost of Ownership and provide for a sustainable replacement policy.

One of the ways in which technology equipment often enters the school district is through donations. While donated equipment can be beneficial, often it is old, requires repair, and adds to the maintenance burden of the district's hardware inventory. The district has addressed the situation by establishing minimum standards for donated equipment that can be accepted by schools. The donation acceptance policy was recommended by the Education Technology department and has been in effect since May 2000. The policy has helped to prevent the district from being a repository for outdated technology.

6.d. Description of the process that will be used to monitor Ed Tech Funding, implementation costs and new funding opportunities and to adjust budgets as necessary.

The district's annual budget process determines the level of general fund and categorical fund support that will be available for technology. The budget process begins each year with the Governor's proposed budget in January and May revision. Projected Proposition S funding is added to the budget forecast. The district adopts its annual budget in June of each year, and revises that budget as needed when the state legislature passes the state budget. Grants occur on their own timeline, independent of the district's regular budget process. If additional restricted funding for technology become available, the district may change its priorities for less-restricted funding accordingly.

The Educational Technology Strategic Plan Committee will have the overall responsibility for monitoring the technology budget and making recommendations to the Superintendent and

Board of Education concerning technology expenditures. The following groups will participate in the feedback loop used to monitor progress and update funding:

- The Educational Technology Director and the Information Technology Department Director will review and update the technology budget and funding plan on a quarterly basis, and present updated information to the Educational Technology Strategic Plan Committee.

- Site Principals will evaluate their needs and available resources of their school, and re-allocate resources as necessary. The Educational Technology Director will collect information about these reallocations and summarize it in the quarterly reports provided to the Committee.

- School Site Councils will work with site principals to allocate site categorical funds to meet their technology needs.

- The Grants Office will provide information to the CITO and Educational Technology Director about technology-related grants. The Educational Technology Director will include this feedback in the semi-annual reports to the Educational Technology Strategic Plan Committee.

7. MONITORING AND EVALUATION COMPONENT CRITERIA

7.a. Description of the process for evaluating the plan's overall progress and impact on teaching and learning.

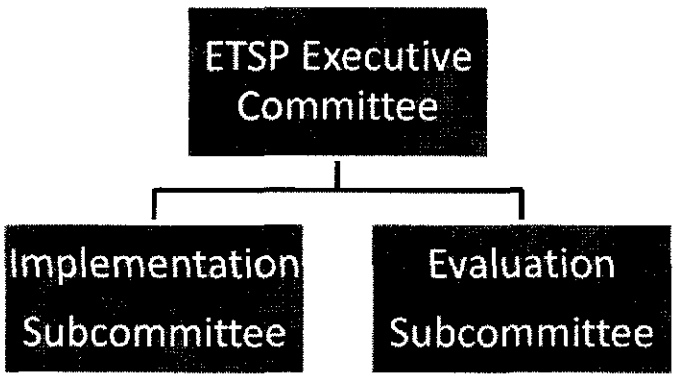
District administrators and other central office staff members will be responsible for the oversight and coordination of the Educational Technology Plan's implementation. The district will form the Educational Technology Strategic Plan (ETSP) Committee to oversee ongoing planning, implementation, monitoring and evaluation of the ETSP. The Superintendent or designee will name representatives of district schools and central office departments to serve on the ETSP Committee. Stakeholders groups will be represented on three subcommittees:

1. The Executive Committee, will be led by the Chief Information and Technology Officer (CITO) and will include the leadership of each district division, will be responsible for the oversight of the EETT formula grant program and the overall implementation of the ETSP.

2. The Implementation Subcommittee, which will consist of representatives of each of the key district departments participating in the implementation of the plan plus student, teacher, site principal and community representatives. This Subcommittee group will review the implementation plans and their progress in achieving them on an ongoing basis. Subcommittee members will coordinate the implementation activities to promote successful integration of technology into teaching and learning.

3. The Evaluation Subcommittee, which will review the data collected by the implementation committee and program staff to determine whether the ETSP is achieving its objectives and goals. The Evaluation Subcommittee will include representatives of the district divisions implementing the plan, other district administrators, teachers and staff, and students, parents and community members who accept the invitation to serve on the committee.

The organization of the Educational Technology Strategic Plan Committee is presented below:



The Director of Educational Technology will serve as lead staff to the ETSP Executive Committee and Evaluation subcommittee. At the beginning of the first year of the plan, the Educational Technology Director and staff will identify all of the evaluation data needed for the plan, the baseline for that data, and the additional requests for site and central office staff feedback that will be required to evaluate the achievement of each objective.

The Educational Technology Director and staff will meet regularly with the Implementation Subcommittee to monitor progress in the implementation of the Plan. The Educational Technology Director and staff will provide the Evaluation subcommittee with semi-annual briefing reports of progress in implementing the plan, and will provide annual data on the impact of technology on student learning and attainment of the district's curriculum goals. The annual benchmarks for each objective that are listed in the plan will be used as indicators of success.

The ETSP Evaluation subcommittee will review these reports at their regularly scheduled evaluation meetings, and approve the semi-annual evaluation briefing report. Each summer (at the end of a project year), the ETSP Evaluation subcommittee will conduct an in-depth evaluation review. As part of this evaluation process, the ETSP Committee will review reports from staff responsible for implementing each component of the plan, the results of the annual EdTechProfile technology use and proficiency surveys, the annual State Technology Survey, and annual data on student achievement (including STAR assessment results).

7.b. Schedule for evaluating the effect of plan implementation.

The Evaluation Subcommittee will meet during the first quarter of the ETSP plan duration (between September and November, 2010) to review the data to be collected for the evaluation of the Plan, the sources of that data, and to identify and develop additional surveys and questionnaires needed to obtain all of the information required to assess the progress in implementing the activities of the plan and the student and teacher outcomes that result.

The Educational Technology Director and staff will prepare semi-annual briefing reports that summarize the information available and collected each semester. The Evaluation Subcommittee will then meet regularly during each Plan year to review and discuss the briefing reports prepared by staff. The Evaluation Subcommittee will review and analyze the progress made in implementing scheduled activities within each objective of the plan, progress in implementing hardware and software components of the plan, and participation in data collection activities (including site participation in the State Technology Survey and teacher and administrator participation in the EdTechProfile Technology Use Survey). The Evaluation Subcommittee will discuss their findings, identify potential areas for change in program activities and their implementation, and will forward their recommendations to the Implementation Subcommittee for discussion and feedback.

The Evaluation Subcommittee will then conduct a summary evaluation of program progress and student, teacher and staff outcomes at the end of each ETSP program year (in July or August of each year, starting in 2011).

7.c. Description of the process and frequency of communication evaluation results to tech plan stakeholders.

The ETSP Evaluation subcommittee will use the results of the regular program reviews, feedback from the Implementation subcommittee, and the annual outcomes review to identify the most successful practices and areas in which challenges have been encountered and improvements are needed. The Evaluation subcommittee will identify potential changes and improvements that could be made to the Educational Technology Strategic Plan based on their analysis. The Evaluation subcommittee will make recommendations for changes to the plan to the ETSP Executive Committee for their review.

The ETSP Executive Committee will review the Evaluation subcommittee's reports, and will develop findings and recommendations concerning changes to the plan. The ETSP Executive Committee will then review their findings and recommendations with the full ETSP Committee, which will reach consensus on the findings and recommendations to be forwarded to the district Executive Cabinet and Board of Education.

The Educational Technology Director and staff will draft an annual report to the Chief Information and Technology Officer relaying the ETSP Committee's findings regarding the successful implementation of the SDUSD Educational Technology Strategic Plan. The ETSP Committee will approve and then forward the annual report to the Chief Information and Technology Officer (CITO). Reports of ETSP implementation progress and changes made to the plan also will be sent to the SDUSD Executive Cabinet members so that they can make informed decisions concerning funding, training and support.

The San Diego Board of Education has established Operational Expectations for technology that call for the superintendent to assure the effective use of technology to support teaching and learning and to enable efficient administration of the district's operational functions. The Board of Education identified eight components of the Operational Expectations for technology:

1. Develop a comprehensive technology plan that directs priorities and outcomes for the expenditure of technology resources.

2. Maintain a comprehensive and functional technology infrastructure ensuring efficient academic and business operations.

3. Establish technology proficiency expectations for staff and provide necessary staff development.

4. Develop and effectively communicate a compelling and realistic vision of technology use in the learning environment, now and in the future.

5. Provide to students, parents and community electronic access to appropriate information about school and district programs and academic progress.